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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,279	09/30/2003	Wilfrid E. Taylor	14394	4732
293	7590	04/09/2004	EXAMINER	
DOWELL & DOWELL PC SUITE 309 1215 JEFFERSON DAVIS HIGHWAY ARLINGTON, VA 22202			HASAN, MOHAMMED A	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 04/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,279

Applicant(s)

TAYLOR ET AL.

Examiner

Mohammed Hasan

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1- 20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1- 3, 15 - 17, 19, 20 is/are rejected.
- 7) ☒ Claim(s) 4 - 14, 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/30/2003</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on September 30, 2003 is accepted.

Information Disclosure Statement

2. The prior art documents submitted by applicant in the Information Disclosure Statement filed on September 30, 2003 have all been considered and made of record (note the attached copy of form PTO – 1449).

Specification

3. The disclosure is objected to because of the following informalities:
Claim 8, line 1, delete word "is", insert - - in - - .
Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102 (b) as being anticipated by Marshall et al (6,547,423 B2).

Regarding claim 1, Marshall et al discloses (refer to figures 1A and 1B) an optical lens for projecting light from a high power light emitting diode , the lens (2) including a body having a front face and a rear face and continuous curved side wall which is symmetrical with respect to a central axis of the body extending between rear face and front face , a cavity extending into rear face of the body coaxially with central axis of body for cooperatively receiving a hemispherical cover of a high power light emitting diode source (1) therein so that substantially all light from the high power light emitting diode source enter into the body and an inner surface of side wall being reflective and configured such that light from the high power light emitting diode source is projected through front face in a lambertion pattern (e.g., lambertion pattern is inherent when the light emitting from diode source) (column 5, lines 49 – 67, column 6, lines 1 – 31).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 15, 16, 19, 20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Marshall et al (6,547,423) in view of Lockard (4,466,050).

Regarding claim 3, as applied to claim 1, Marshall et al discloses all of the claim limitations except at least one guide flange. However, Lockard discloses (refer to figure 5) a guide flange 80 (column 6, line 24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a flange in to Marshall an optical lens system for the purpose of maximum degree of back light illumination as taught by Lockard (column 2, lines 17 – 18).

Regarding claim 15, Marshall et al discloses an optical lens for projecting light from a high power light emitting diode (1), the lens (2) including a body having a front face and a rear face and a continuous curved side wall which is symmetrical with respect to central axis of body extending between rear face and front face, a cavity extending into rear face of body coaxially aligned with central axis of body cooperatively receiving a hemispherical high power light emitting diode source enters into body an innersurface of walls being reflective and configured such that from the high power light emitting diode source is projected through front face (column 5, lines 49 – 67, column 6, lines 1 – 31). Marshall et al discloses all of the claim limitation except one guide flange. However, Lockard discloses (refer to figure 5) one guide flange 80 (column 6, line 24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a flange in to Marshall an optical lens system for the purpose of maximum degree of back light illumination as taught by Lockard (column 2, lines 17 – 18).

Regarding claim 16, Marshall et al discloses, the body includes an annular lip extending radially outward relative to front face so as to extend beyond side wall (as shown in figure 1A) .

Regarding claim 19, Marshall et al discloses an optical lens for projecting light from a high power light emitting diode (1), the lens (2) including a body having a front face and a rear face and a continuous curved side wall which is symmetrical with respect to central axis of body extending between rear face and front face, a cavity extending into rear face of body coaxially aligned with central axis of body cooperatively receiving a hemispherical high power light emitting diode source enters into body an innersurface of walls being reflective and configured such that from the high power light emitting diode source is projected through front face, an annular lip extending radially outwardly relative to front face of body so as extend beyond side wall , a lens holder including a front annular end a rear portion and defining an internal cavity (8) for cooperatively receiving body, a closure member for selectively securing annular lip of body to retain body within internal cavity of lens holder (column 5, lines 49 – 67, column 6, lines 1 – 31). Marshall et al discloses all of the claim limitation except one guide flange and a heat sink. However, Lockard discloses (refer to figure 5) one guide flange 80 (column 6, line 24) and a heat sink (column 6, line 19 – 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a flange and heat sink in to the Marshall an optical lens system for the purpose of maximum degree of back light illumination as taught by Lockard (column 2, lines 17 – 18).

Regarding claim 20, Lockard discloses (refer to figure 5) outer encasement body (72) the lens holder (column 4, lines 24 - 25).

6. Claims 2 and 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Marshall et al (6,547,423) in view of Naka (5,813,743).

Regarding claim 2 as applied to claim 1 and claim 17 as applied to claim 15, Marshall et al discloses all of the claim limitations except a beam angle of between 5° to 30° with respect to central axis. Naka discloses a beam angle 2° to 5° to the optical axis and up to 30° at the largest (column 6, lines 58 – 62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a prism in to the Marshall an optical system for the purpose of projecting angle can be efficiently changed (column 4, lines 31 – 33).

Allowable Subject Matter

7. Claims 4 – 14, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The reference fails to show a counter bore in the rear face surrounding cavity, and a plurality of fingers extending within a central cavity.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Medvedev et al (5,757,557) discloses beam forming lens with internal cavity prevents front losses.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MH
April 3, 2004

A handwritten signature in black ink, appearing to read "Georgia Epps". The signature is written in a cursive, flowing style.

Georgia Epps
Supervisory Patent Examiner
Technology Center 2800